

Prof. Daniel Kirkwood (Bloomington, Indiana) presented, through the Secretaries, a communication, entitled, "Note on the possible existence of Fireballs and Meteorites in the Stream of Bielids."

The Report of the Committee on *Volapük* was read, after which a discussion upon the subject-matter of the Report ensued, participated in by the members, and ultimately, on motion of Mr. McKean, the whole subject was recommitted.

The Report of the Treasurer was presented and referred to the Finance Committee, and the Society was adjourned by the President.

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*Note on the Possible Existence of Fireballs and Meteorites in the Stream of Bielids. By Daniel Kirkwood.*

*(Read before the American Philosophical Society, December 2d, 1887.)*

A revision of my paper on this subject, read September 2d, 1887, suggests the following modifications :

1. Before 1832, the earth passed the comet's node early in December. The first eight meteors of the list should therefore be rejected.

2. In Greg's Catalogue the circumstances which indicate the radiant are not generally given ; the probability that the meteors belong in part to the stream of Bielids must be judged by a comparison of their relative numbers with the mean number during a specified time. In the thirty years from 1831 to 1860, the list gives seven hundred and twenty-one fireballs and meteorites, or six for any three days of the year taken at random. The number for November 28-30 is twelve, or twice the average. Of these, one is the meteorite which fell during the shower of Bielids on November 27th, 1885 ; one is the conformable fireball of November 28th, 1850, the date of a well-marked shower of shooting stars ; three (1839, 1848, and 1850, Nov. 30) are non-conformable ; and the directions of the remaining seven are unknown, at least to the writer. Mr. Greg calls attention to November 27-30 as an aerolitic epoch coincident with one of shooting stars.

3. The attempt in my paper of September 2d, to trace a period approximately equal to that of Biela's comet was probably premature.